

Paper 192-2011

Focused Preparation for SAS® Certification Exams

Terry Barham, SAS Institute Inc., Cary, NC

ABSTRACT

Preparation is the key to passing SAS Certification exams. Knowing where and how to focus your study efforts can help you reach the required level of proficiency as efficiently and effectively as possible. This paper helps you find and understand the most important details and requirements for SAS Certification exams, including a list of individual test objectives, recommended training and preparation options, exam durations, required passing scores, sample questions, and what to expect on exam day.

INTRODUCTION

To prepare for a SAS certification, you must understand the expectations for each exam. First, be aware of the individual test objectives, sample questions, exam duration, and passing score. Then, identify preparation options, available resources, and recommended training. Finish your preparation with an understanding of what to expect on exam day. With this focused preparation, your chances of success are greatly increased.

WHERE DO I START?

The SAS Global Certification Web site, <http://support.sas.com/certify/>, is the starting point for all aspects of SAS Certification and it provides detailed information about individual exams.

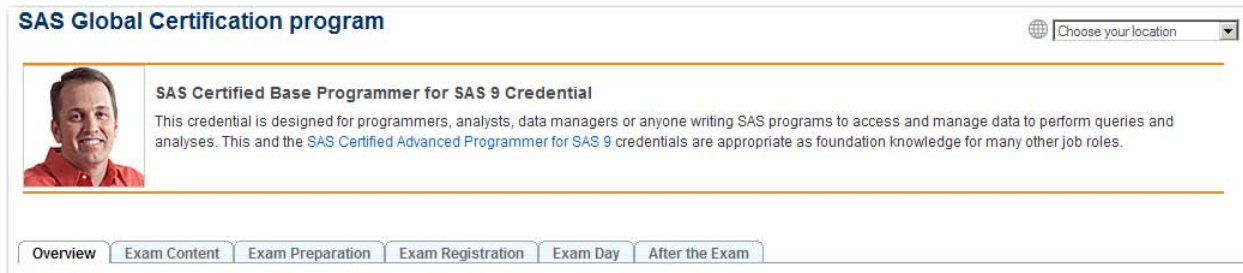
The screenshot shows the SAS Global Certification program website. The main content area is titled "SAS Global Certification program" and features a banner with the text "A World of Opportunity" and three globes. Below the banner, it says "Get SAS Certified with these credentials:" and lists two categories: "SAS Foundation" and "SAS Analytics". Under "SAS Foundation", there are two credentials: "SAS Certified Base Programmer for SAS 9" and "SAS Certified Advanced Programmer for SAS 9". Under "SAS Analytics", there is one credential: "SAS Certified Predictive Modeler Using SAS Enterprise Miner 5 or 6". The right sidebar contains an "ANNOUNCEMENTS" section with a notice about the Predictive Modeling exam interface, a "RESOURCES" section with links to frequently asked questions, packages and discounts, a directory of certified professionals, a certification community, and SAS partners. The "STAY INFORMED" section includes links to a certification e-newsletter, a certification brochure (pdf), and a contact us link. At the bottom right, there is a "Watch Video" section with a video player and a "Watch video" link.

All available SAS certifications are listed on this site. For more information, click on a specific certification and drill down. For example, if you are interested in achieving the SAS Certified Base Programmer certification, click on the appropriate link and drill down for details. Because the SAS Certified Base Programmer is the most common SAS certification, it will be used as an example in this paper.

Focused Preparation for SAS Certification Exams, continued

WHAT INFORMATION IS AVAILABLE FOR AN EXAM?

Each exam has a details page that contains tabs that provide information about the exam. Here is the page for the SAS Certified Base Programmer exam:



SAS Global Certification program Choose your location

SAS Certified Base Programmer for SAS 9 Credential

This credential is designed for programmers, analysts, data managers or anyone writing SAS programs to access and manage data to perform queries and analyses. This and the [SAS Certified Advanced Programmer for SAS 9](#) credentials are appropriate as foundation knowledge for many other job roles.

Overview Exam Content Exam Preparation Exam Registration Exam Day After the Exam

Notice the tabs:

Overview provides a brief exam description.

Exam Content provides exam details, including specific testing objectives.

Exam Preparation provides a list of recommended training and a link to sample questions.

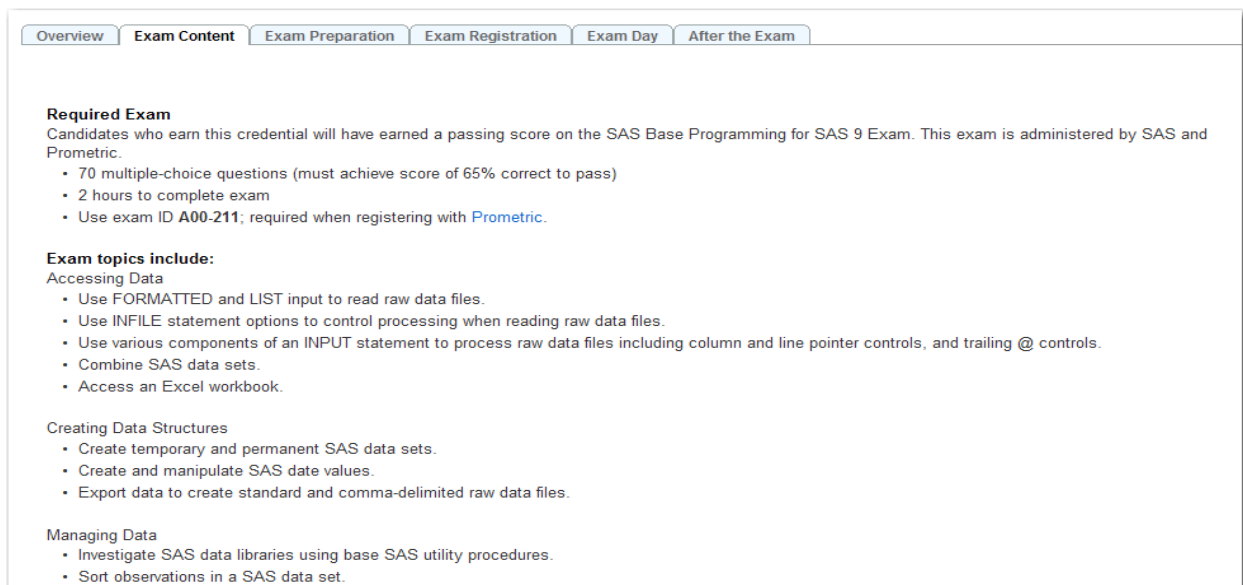
Exam Registration provides information about how to schedule an exam.

Exam Day provides information about what to expect at your testing session.

After the Exam provides information about what communications you will receive after the exam.

WHAT IS COVERED ON AN EXAM?

This is a critical component. Without understanding what topics will be tested on an exam, even experienced people can have difficulty if they have not worked with all topic areas. The **Exam Content** tab is where specific testing objectives can be found. Here is an example from the SAS Certified Base Programmer exam:



Overview **Exam Content** Exam Preparation Exam Registration Exam Day After the Exam

Required Exam

Candidates who earn this credential will have earned a passing score on the SAS Base Programming for SAS 9 Exam. This exam is administered by SAS and Prometric.

- 70 multiple-choice questions (must achieve score of 65% correct to pass)
- 2 hours to complete exam
- Use exam ID **A00-211**; required when registering with [Prometric](#).

Exam topics include:

Accessing Data

- Use FORMATTED and LIST input to read raw data files.
- Use INFILE statement options to control processing when reading raw data files.
- Use various components of an INPUT statement to process raw data files including column and line pointer controls, and trailing @ controls.
- Combine SAS data sets.
- Access an Excel workbook.

Creating Data Structures

- Create temporary and permanent SAS data sets.
- Create and manipulate SAS date values.
- Export data to create standard and comma-delimited raw data files.

Managing Data

- Investigate SAS data libraries using base SAS utility procedures.
- Sort observations in a SAS data set.

You can see that the Base Programming exam contains 70 questions and requires a passing score of 65%. Under **Exam topics include**, you can see the individual testing objectives. You can expect to see questions about using the INFILE statement, combining SAS data sets, creating and manipulating SAS date values, and so on. Your preparation and study efforts should include all testing objectives.

Focused Preparation for SAS Certification Exams, continued

WHERE CAN I GAIN THE REQUIRED KNOWLEDGE?

Training and experience are the best preparation methods. Each exam has a tab for **Exam Preparation** that lists recommended training. Here is an example from the Base Programming exam:

Overview Exam Content **Exam Preparation** Exam Registration Exam Day After the Exam

Best Value! Save 50%.
Base Certification Package
Available in U.S. and Canada
[» Learn More](#)

Experience is a critical component to becoming a SAS Certified Professional. The below diagram illustrates training options available to help you prepare for this credential's required examination. Be sure to check your local country's preparation bundles which often include an exam voucher.

SAS[®] Programming 1: Essentials
+
SAS[®] Programming 2: Data Manipulation Techniques
OR
Be an experienced programmer with knowledge of the five exam content areas.
+
SAS[®] Certification Review: Base Programming for SAS[®] 9

SAS[®] Base Programming for SAS[®] 9 Exam

View the [sample questions](#) for this exam.

In this case, two main courses are identified: SAS Programming 1 and SAS Programming 2.

These courses provide the foundation knowledge that is required for the exam. Note that the training courses and exams are based on the same job roles. The exams will test your ability to apply your skills and knowledge, so experience is also a key factor.

WHAT OTHER RESOURCES ARE AVAILABLE?

Sample questions are also available. For Base Programming, the questions are at the application level and require you to interpret and analyze code in order to identify the correct answer. There is a link on the **Exam Preparation** tab for each exam that takes you to the sample questions. Here is an example from the Base Programming exam:

Focused Preparation for SAS Certification Exams, continued

SAS Base Programming for SAS 9

Item 1
The following program is submitted.

```

data test;
  input name $ age;
cards;
John +35
;
run;

```

Which values are stored in the output data set?

A. name age

John 35

B. name age

John (missing value)

C. name age

(missing value) (missing value)

D. The DATA step fails execution due to data errors.

correct_answer = "A"

In addition to the sample questions, you can purchase practice exams from SAS for Base Programming, Advanced Programming, and Predictive Modeling Using SAS Enterprise Miner.

There are other resources available on many topics that are covered in the exams, including papers, blogs, documentation, and SAS Press books. These can be found at support.sas.com and support.sas.com/publishing. "The SAS Training Post" is a blog that includes certification content and can be found at <http://blogs.sas.com/sastraining/>.

HOW TO SCHEDULE AN EXAM

When you are ready, you can schedule your exam attempt at any Prometric test site globally. Click the **Exam Registration** tab for instructions.

Overview Exam Content Exam Preparation **Exam Registration** Exam Day After the Exam

Registration Options

- **Online**
Visit www.prometric.com/sas. Follow these easy steps once on the site:
 1. Select the first box "Schedule a Test"
 2. Select "Schedule an Appointment"
 3. Choose your country and state/province if applicable
 4. Insure that "SAS Institute" is selected as your client and program
 5. Select your desired SAS certification exam
 6. Review available testing sites and select "Schedule Appointment"

First-time registration with Prometric requires a 24-hour waiting period before the candidate can schedule an exam online. Candidates who are registering for an exam for the first time will receive an email confirmation from Prometric within 24 hours to begin the online scheduling process. Candidates who have previously tested with Prometric and have their Prometric ID or have previously registered online can schedule their exam online immediately.
- **Telephone**
By phone in the U.S. and Canada: 888-895-5819 between 7:00 a.m. and 7:00 p.m. CST
By phone outside the U.S. and Canada, visit www.prometric.com/sas for a list of exam registration phone numbers.

Exams are usually taken at a Prometric test site, but exams are also offered at selected SAS sites and events, such as regional users group meetings and SAS Global Forum.

Focused Preparation for SAS Certification Exams, continued

WHAT IS AN EXAM TESTING SESSION LIKE?

All SAS exams are proctored and are taken on a PC (personal computer). When you arrive for your exam session, your identity will be confirmed, and you will be directed to a PC testing station where you will take the exam. No reference materials, cameras, or electronic devices are allowed. SAS exams usually have a two-hour time limit. Test questions are in multiple-choice format. Frequently, questions include exhibits, code samples, and displays that require you to interpret a situation, and then apply your experience and knowledge to select the best answer.

After you have completed your exam, your exam score and pass/fail status is immediately shown on your PC screen and is also sent to your e-mail address. If you have passed your exam and met all certification requirements, you will receive an electronic certificate and instructions on accessing your approved certification logos.

CONCLUSION

Fully understanding what is going to be on an exam and the types of questions that you will encounter is critical in preparing for an exam. Job experience by itself can be insufficient if you have not worked with all topic areas. Take advantage of all the resources that are available to you, including training, sample questions, detailed exam information, and information at sites such as support.sas.com and support.sas.com/publishing. Once you know what is expected on an exam and the available resources, you can focus your preparation efforts on the most important areas.

REFERENCES

SAS Global Certification program: <http://support.sas.com/certify/>

SAS Support: <http://support.sas.com>

SAS Publishing: <http://support.sas.com/publishing/>

The SAS Training Post blog: <http://blogs.sas.com/sastraining/>

CONTACT INFORMATION

Your comments and questions are valued and encouraged. Contact the author:

Terry Barham
SAS Campus Drive
SAS Institute Inc.
E-mail: terry.barham@sas.com

SAS and all other SAS Institute Inc. product or service names are registered trademarks or trademarks of SAS Institute Inc. in the USA and other countries. © indicates USA registration.

Other brand and product names are trademarks of their respective companies.